

1999 TRANSIT PROJECT OF THE YEAR

63rd Street
Tunnel Connector

Once called the "tunnel to nowhere," the 63rd Street Tunnel Connector is a long-overdue reality. Sure, the idea for the project goes back to 1963. And yes, it has faced financing woes, redesign and an evolution in its concept. But what has evolved is the "tunnel to the 21st century."

In the beginning, the project faced many design challenges. For example, in order to tunnel under the existing IND subway tunnel on Northern Boulevard in Queens, the excavation had to be designed to go 20-ft. below the tunnel and penetrate an inverted concrete slab so an existing five-track tunnel could be accessed, underpinned and joined.

The project also called for the installation of track crossovers, the integration of two four-story, 8,000-sq.-ft. ventilation buildings, and the lowering of a sewer siphon by 50 ft. so a new tunnel could be built in its place with a new sewer siphon located beneath the new tunnel. To achieve these tasks, deep shafts were cut through 140 ft. of rock after the slurry walls were built.

In addition, two existing subway tracks located over two Long Island Rail Road (LIRR) tracks built in the 1970s were extended 300 ft. to link the tracks with future connections, including the planned LIRR East Side Access project. These tracks were extended under Northern Boulevard, requiring support for the existing road and neighboring buildings.

The 1,300-ft. 63rd Street Tunnel Connector project also includes a half-mile of new construction and eight miles of rehabilitation work. The new construction consisted of connecting two active subway systems — the 63rd Street line which operates the B and Q subways and the Queens Boulevard line on which the E, F, G and R lines run — underground.

Another construction challenge was that the existing ground water 8 ft. below the roadway surface needed to be maintained using a series of interconnecting slurry and jet grout walls.

Maintaining active subway lines was also challenging. To accomplish this, construction was staged and work was performed on weekends and off-hours.

Jury Comments

The jury called the 63rd Street Tunnel Connector "an engineering challenge," and labeled the project "the most outstanding project in heavy construction in the last decade."

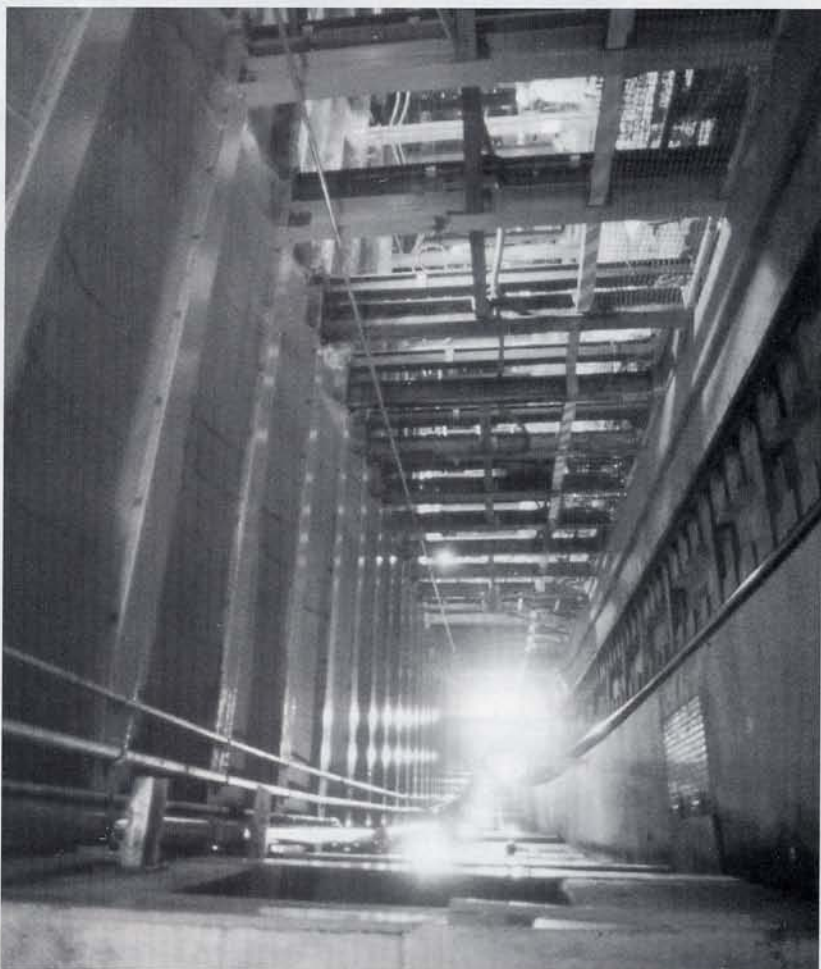


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Development Team

DESIGN ENGINEER: New York City Transit Consultants of New York, N.Y., a joint venture of Parsons Brinckerhoff and URS Greiner Woodward Clyde, NYC

DESIGN ENGINEER: Metropolitan Transportation Authority/New York City Transit, NYC

ELECTRICAL CONTRACTOR: Mulvihill Electrical Contracting Corp., Staten Island, N.Y.

STRUCTURAL STEEL CONTRACTOR: Helmark Steel Inc., Wilmington, Del.

SLURRY WALL CONTRACTOR: Bencor, Dallas, Tex.

JETWALL CONTRACTOR: Pacchiosi Drill USA Inc., Saint John Baptiste, Quebec.

GENERAL CONTRACTOR: Slattery-Perini, a joint venture, Whitestone, N.Y.

GENERAL CONTRACTOR: Laquila Construction, Brooklyn, N.Y.

GENERAL CONTRACTOR: L.K. Comstock, Maspeth, N.Y.

GENERAL CONTRACTOR: Impulse Enterprises and F&V Mechanical Joint Venture, Farmingdale, N.Y.

CONSTRUCTION MANAGER & OWNER: Metropolitan Transportation Authority/New York City Transit, NYC